

## **ABSTRACT OF DISCLOSURE**

A system for obtaining inline sensory feedback from an electroactive polymer based transducer for use in feedback control applications is disclosed. Specifically a

5 method of obtaining sensory feedback from an electroactive polymer based transducer includes the steps of : receiving a user input in a control system, combining it with a control system feedback signal from a sensory feedback circuitry and producing a control signal; receiving the control signal in an amplifier and sensory tone generator, combining it with an amplifier feedback signal from the sensory feedback circuitry and

10 producing a power signal; receiving the power signal and an environmental disturbance in an electroactive polymer transducer and sensory circuitry and responsive to the user input producing a sensory signal; receiving the sensory signal in the sensory feedback circuitry and producing the control system feedback signal and the amplifier feedback signal; and producing a data output in the control system.